

REMARKS

The Office raises an objection concerning wording in the Abstract. The abstract presently is amended in a manner that is believed to fully respond to this matter. Also, a paragraph on page 9 is amended to correct an editorial error.

Claims 5, 7 and 11 are rejected under 35 U.S.C. Section 112, second paragraph because these claims do not disclose how long it should take to heat the adhesive or what the adhesive properties comprise. The claims are amended to recite that the heat responsive coupling member comprises a hot melt adhesive that is bonded to the embolic coil and releases therefrom upon being heated. It is respectfully asserted that one of ordinary skill in the art would understand the adhesive properties of a hot melt adhesive when heated. Applicants also respectfully observe that the relevant claims are rendered more definite by specifying that such heating is to about 65°C than if no temperature were specified or if no yield strength threshold were specified. Applicants respectfully request reconsideration and withdrawal of this Section 112 rejection of claims 5, 7 and 11.

Claims 1-13 are rejected under 35 U.S.C. Section 103 from Saadat, et al. WO/97/01368 ("Saadat") in view of Lee et al. U.S. Patent No. 5,911,737 ("Lee").

Claims 1 and 10 are presently amended to specify that the heat responsive coupling member couples to the heating element by a hot melt adhesive bond and comprises a biocompatible adhesive that exhibits the characteristic of releasing the embolic coil when the adhesive is heated. Support for this adhesive bond and biocompatible adhesive subject matter is found, for example, at line 14-18 of page 11 and at line 9 of page 10. Support for the coupling member comprising a hot melt adhesive and its characteristic of releasing are found, for example, at lines 10-12 of page 10 and other passages.

Newly submitted claim 14 provides further properties about the hot melt adhesive, namely that it softens when heated so it may be stretched. Support therefor is found, for example, at lines 9-10 of page 10.

Claim 15 specifies that the hot melt adhesive has a lower yield strength after heating than before heating, support therefor being found, for example, from line 23 of page 10 to line 12 of page 11.

Claim 16 specifies that the hot melt adhesive softens so that it may be stretched when heated to at least about 63°C, support therefor being found, for example, at lines 10-15 of page 10, together with original claim 3.

Claim 17 specifies that the heat responsive coupling member breaks when the delivery member is retracted with respect to the positioning member, support therefor being found, for example, at lines 1-2 of page 11 and in Figs. 4 and 5.

This disclosure also supports new claim 18, and lines 12-18 of page 11 support new claim 18, which specifies that the embolic coil release comprises disengaging the heating element from the embolic coil by breaking the adhesive bond.

Concerning Saadat, the Office acknowledges this patent publication does not teach a non-metallic polymer heat responsive coupling member coupled to a heating element. Saadat teaches that coupling is accomplished by a shape memory alloy which moves between a first configuration and a second configuration depending upon temperature. Applicants further observe that Saadat does not teach or disclose a non-metallic polymer heat responsive coupling member that couples a heating element to an embolic coil by an adhesive bond or that such a responsive coupling member comprises a biocompatible adhesive,

all as specified in present claims 1 and 10. The teaching of Saadat also is deficient with a respect to present dependent claims of this application.

Lee is cited for teaching a vascular occlusion coil deployment system that incorporates a polymer heat responsive coupling member. The Office takes the position that this heat responsive coupling member is "adhesively bonded" to the embolic coil. It is respectfully believed that the definition of adhesive that is presented in the Office Action is not consistent with the presently claimed invention. The dictionary definition presented by the Office, in the context of the teaching of Lee, does not lead to a conclusion that Lee discloses an adhesive bond with a biocompatible adhesive, as specified in present claims 1 and 10.

To further illustrate this, applicants attach a copy from Merriam Webster's Collegiate Dictionary, Tenth Edition, wherein the noun form of "adhesive" is that of a glue or cement substance. Also attached is an excerpt from the American Heritage Dictionary, Second College Edition, which provides substantially the same definition for the noun form of adhesive, while providing an adjective form of adhesive that does not comport with the teachings of Lee. This latter definition is

"tending to adhere; sticky." Furthermore, a print-out from an on-line dictionary in response to a query for "adhesive" is enclosed. The first page of this print-out enclosure gives a definition of the adjective form of adhesive as "having the property of adhering; gluey, gooey, gummy, sticky, tacky." Similar definitions are found on page 3 of this print-out enclosure, including: "an adhesive is a compound that adheres or bonds two items together."

Rather than teaching a biocompatible adhesive that provides an adhesive bond to couple components together, Lee would have taught one of ordinary skill in the art to provide a tubing (10) made of a shape memory polymer that undergoes a phase transformation at a specified temperature. The teaching of Lee is to elevate the temperature of such a tubing above this phase transformation temperature so that it will soften and reshape to move from a shape of a cylinder such as shown in Fig. 1B to a shape such as that shown in Fig. 1C, a shape conforming to ball (12) of a coil (11).

From the above, it is evident that Lee does not remove the deficiencies of Saadat in order to arrive at the invention specified in presently amended claims 1 and 10. Lee does not teach one of ordinary skill in the art to provide an adhesive

bond between a heating element and the coil of Lee or Saadat. Nor does Lee disclose a biocompatible adhesive. Nor does Lee disclose an arrangement that releases an adhesive bond and the embolic coil.

Furthermore, Lee does not disclose subject matter of current claims. For example, Lee does not teach a hot melt adhesive or an adhesive that may be stretched when heated in order to release the adhesive bond (claim 14), or movement between a delivery member and a positioning member that breaks an adhesive bond (claims 17 and 18).

From the above, applicants respectfully observe that, even if it had been obvious to combine Saadat with Lee, the invention as specified in applicants' claims would not have been arrived at.

Claims 1-13 are rejected under the judicially created doctrine of obviousness-type double patenting from claims 1, 5, 7 and 28 of U.S. Patent No. 6,277,126. Also, claims 1-4 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting from claims 1-4 of co-pending application No. 10/722,335. Applicants enclose two Terminal Disclaimers.

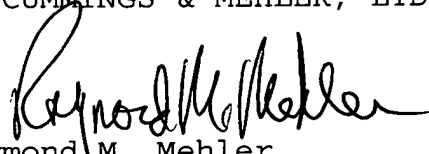
It is respectfully understood that submission of these Terminal Disclaimers overcomes these double-patenting rejections. These submissions are made without admitting the propriety of the rejections and is done in order to serve the statutory function of removing the double-patenting rejections, and this action raises neither a presumption nor an estoppel with respect to the merits of the double-patenting rejections.

Reconsideration and withdrawal of the Section 112, Section 103 and double-patenting rejections are respectfully requested, as is the allowance of the present application.

Favorable consideration and allowance are respectfully requested.

Respectfully submitted,

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A handwritten signature in dark ink, appearing to read "Raymond M. Mehler", written in a cursive style.

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rectly accessible (~ registers in a computer) 2: of or relating to a subscription television system that uses decoders addressable by the system operator — **ad-dress-abil-i-ty** \ə-dre-sə-'bi-lə-tē\ n
ad-dress-ee \ə-dre-'sē, ə-dre-'sē\ n (1810): one to whom something is addressed

ad-duce \ə-'dūs also -'dyūs\ v **ad-duced**; **ad-duc-ing** [L *adducere*, lit., to lead to, fr. *ad-* + *ducere* to lead — more at *row*] (15c): to offer as example, reason, or proof in discussion or analysis — **ad-duc-er** n
ad-duct \ə-'dakt, ə-'\ v [L *adductus*, pp. of *adducere*] (ca. 1839): to draw (as a limb) toward or past the median axis of the body; also: to bring together (similar parts) (~ the fingers) — **ad-duc-tive** \ə-'dakt-iv\ adj

ad-duct \ə-'dakt\ n [G *Addukt*, fr. L *adductus*] (1941): a chemical addition product

ad-duction \ə-'dāk-shən, ə-'\ n (14c) 1: the action of adducting: the state of being adducted 2: the act or action of adducting

ad-duc-tor \ə-'dāk-tər\ n [NL, fr. L, one that draws to, fr. *adductus*] (1615) 1: a muscle that draws a part toward the median line of the body or toward the axis of an extremity 2: a muscle that closes the valves of a bivalve mollusk

add up vi (1850) 1 a: to come to the expected total (the bill doesn't add up) b: to form an intelligible pattern: make sense (her story just doesn't add up) 2 a: AMOUNT 1b — used with to (the play adds up to a lot of laughs) b: to amount to a lot (just a little each time, but it all adds up) ~ vt: to form an opinion of (added him up at a glance)

-ade n suffix [ME, fr. MF, fr. OProv *-ada*, fr. LL *-ata*, fr. L, fem. of *-atus* -ate] 1: act: action (blockade) 2: product; esp: sweet drink (limeade)

Adélie penguin \ə-'dā-lē-\ n [*Adélie* Coast, Antarctica] (1907): a small antarctic penguin (*Pygoscelis adeliae*) — called also *Adélie*

-adelphous adj comb form [prob. fr. NL *-adelphus*, fr. Gk *adelphos* brother, fr. *ha-*, *a-* together (akin to *homos* same) + *del-* phis' womb — more at *SAME*, *DOLPHIN*] : having (such or so many) stamen fascicles (monadelphous)

aden- or **adeno-** comb form [NL, fr. Gk, fr. *aden-*, *adēn*: akin to L *inguen* groin] : gland (adenine): adenoid (adenovirus)

ad-e-nine \ə-'d-nē-\ n [ISV, fr. its presence in glandular tissue] (1885): a purine base C₅H₄N₆ that codes hereditary information in the genetic code in DNA and RNA — compare CYTOSINE, GUANINE, THYMINE, URACIL

ad-e-mi-tis \ə-'d-n-'t-s\ n [NL] (ca. 1848): inflammation of a gland; esp: LYMPHADENITIS

ad-e-no-car-ci-no-ma \ə-'d-n-(l)-ō-kār-s'n-'ō-mə\ n [NL] (ca. 1889): a malignant tumor originating in glandular epithelium — **ad-e-no-car-ci-no-ma-tous** \-mə-təs\ adj

ad-e-no-hy-poph-y-sis \ə-'hī-pā-fə-səs\ n, pl -y-ses \-fə-sēz\ [NL] (1935): the anterior glandular lobe of the pituitary gland — **ad-e-no-hy-poph-y-se-al** \-(l)-hī-pā-fə-'sē-əl\ or **ad-e-no-hy-po-phys-i-al** \-hī-pā-'fī-zē-əl\ adj

ad-e-noid \ə-'d-n-'ōid, 'ad-'nōid\ n [Gk *adenoidēs* glandular, fr. *adēn*] (ca. 1890): an enlarged mass of lymphoid tissue at the back of the pharynx characteristically obstructing breathing — usu. used in pl.

adenoid adj (ca. 1947) 1: of or relating to the adenoids 2: relating to, affected with, or associated with abnormally enlarged adenoids (a severe ~ condition) (~ facies)

ad-e-noi-dal \ə-'d-n-'ōi-dl\ adj (1919): exhibiting the characteristics (as snoring, mouth breathing, and voice nasality) of one affected with abnormally enlarged adenoids: ADENOID (an ~ tenor) — not usu. used technically

ad-e-no-ma \ə-'d-n-'ō-mə\ n, pl -mas also -ma-ta \-mə-tə\ [NL *adenoma*, *adenoma*] (1870): a benign tumor of a glandular structure or of glandular origin — **ad-e-no-ma-tous** \-mə-təs\ adj

aden-o-sine \ə-'de-nə-'sēn, -sən\ n [ISV, blend of *adenine* and *ribose*] (ca. 1909): a nucleoside C₁₀H₁₃N₅O₄ that is a constituent of RNA yielding adenine and ribose on hydrolysis

adenosine diphosphate n (1938): ADP

adenosine mo-no-phos-phate \ə-'mā-nə-'fās-fāt, -mō-\ n (1950): AMP
adenosine 3',5'-monophosphate \ə-'thrē-'fiv-\ n (1970): CYCLIC AMP

adenosine tri-phos-phatase \ə-'tri-'fās-fāt, -tāz\ n (1943): ATPASE

adenosine tri-phosphate \ə-'tri-'fās-fāt\ n (1938): ATP

ad-e-no-vi-rus \ə-'d-n-'ō-'vī-rəs\ n (1956): any of a group of DNA-containing viruses orig. identified in human adenoid tissue, causing respiratory diseases (as catarrh), and including some capable of inducing malignant tumors in experimental animals — **ad-e-no-vi-ral** \-rəl\ adj

ad-e-nyl-ate cy-clase \ə-'de-nī-'et-'sī-klās, -āt-, -klāz; ə-'d-n-'i-lāt-, -āt-, -lāt-\ n (1968): an enzyme that catalyzes the formation of cyclic AMP from ATP

ad-e-nyl cyclase \ə-'d-n-'il-\ n [adenine + -yl] (1968): ADENYLATE CYCLASE

ad-e-nyl-ic acid \ə-'d-n-'i-lik-\ n (1894): AMP

ad-ept \ə-'dept, ə-'dept, ə-'\ n [NL *adeptus* alchemist who has attained the knowledge of how to change base metals into gold, fr. L, pp. of *adipisci* to attain, fr. *ad-* + *apisci* to reach — more at *APT*] (1709): a highly skilled or well-trained individual: EXPERT (an ~ at chess)

adept \ə-'dept also 'a-'dept\ adj (ca. 1691): thoroughly proficient: EXPERT *syn* see PROFICIENT — **adept-ly** \ə-'dep-(t)lē, ə-'\ adv — **adept-ness** \-dep-(t)-nəs\ n

ad-e-qua-cy \ə-'di-kwə-sē\ n, pl -cies (1808): the quality or state of being adequate

ad-e-quate \ə-'kwət\ adj [L *adaequatus*, pp. of *adaequare* to make equal, fr. *ad-* + *aequare* to equal — more at *EQUABLE*] (ca. 1617) 1: sufficient for a specific requirement (~ taxation of goods); also: barely sufficient or satisfactory (her first performance was merely ~) 2: lawfully and reasonably sufficient *syn* see SUFFICIENT — **ad-e-quate-ly** adv — **ad-e-quate-ness** n

ad eun-dem \ə-'dē-'m-dəm\ or **ad eundem gra-dum** \ə-'grā-dəm\ adv or adj [NL *ad eundem gradum*] (1711): to, in, or of the same rank —



Adélie penguin

used esp. of the honorary granting of academic standing or a degree by a university to one whose actual work was done elsewhere

à deux \(\)ä-'dō(r), (\)ä-'dō\ adj [F] (1886): involving two people esp. in private (a cozy evening à deux)

à deux adv (1927): privately or intimately with only two present (dined à deux)

ad-her-e \ə-'hīr, ə-'\ vb **ad-hered**; **ad-her-ing** [MF or L; MF *adhérer*, fr. L *adhaerere*, fr. *ad-* + *haerere* to stick] vi (1536) 1: to give support or maintain loyalty 2 obs: ACCORD 3: to hold fast or stick by or as if by gluing, suction, grasping, or fusing 4: to bind oneself to observance ~ vt: to cause to stick fast *syn* see STICK

ad-her-ence \ə-'hīr-ən(t)s\ n (1531) 1: the act, action, or quality of adhering 2: steady or faithful attachment: FIDELITY

ad-her-ent \ə-'hīr-ənt, ə-'\ adj [ME, fr. MF or L; MF *adhérent*, fr. L *adhaerent*, *adhaerens*, prp. of *adhaerere*] (15c) 1: able or tending to adhere 2: connected or associated with esp. by contract 3: ADNATE — **ad-her-ent-ly** adv

adherent n (15c): one that adheres: as a: a follower of a leader, party, or profession b: a believer in or advocate esp. of a particular idea or church *syn* see FOLLOWER

ad-he-sion \ə-'hē-zhən, ə-'\ n [F or L; F *adhésion*, fr. L *adhaesion*, *adhaesio*, fr. *adhaerere*] (1624) 1: steady or firm attachment: ADHERENCE 2: the action or state of adhering 3: the abnormal union of separate tissue surfaces by new fibrous tissue resulting from an inflammatory process; also: the newly formed uniting tissue 4: agreement to join (~ of all nations to a copyright convention) 5: the molecular attraction exerted between the surfaces of bodies in contact — **ad-he-sion-al** \ə-'hēzh-nəl, -hēzh-nəl\ adj

ad-he-sive \ə-'hē-siv-, -ziv\ adj (1670) 1: tending to remain in association or memory 2: tending to adhere or cause adherence 3: prepared for adhering — **ad-he-sive-ly** adv — **ad-he-sive-ness** n

adhesive n (1912) 1: an adhesive substance (as glue or cement) 2: a postage stamp with a gummed back

adhesive binding n (1955): PERFECT BINDING — **ad-he-sive-bound** \-baund\ adj

adhesive tape n (1928): tape coated on one side with an adhesive mixture; esp: one used for covering wounds

ad hoc \ə-'hāk, -'hök; 'ad-'hök\ adv [L, for this] (1659): for the particular end or case at hand without consideration of wider application

ad hoc adj (1879) 1 a: concerned with a particular end or purpose (an ad hoc investigating committee) b: formed or used for specific or immediate problems or needs (ad hoc solutions) 2: fashioned from whatever is immediately available: IMPROVISED (large ad hoc parades and demonstrations — Nat Hentoff)

ad ho-mi-nem \(')ad-'hā-mə-'nem, -nəm\ adj [NL, lit., to the person] (1598) 1: appealing to feelings or prejudices rather than intellect 2: marked by an attack on an opponent's character rather than by an answer to the contentions made

ad hominem adv (1962): in an ad hominem manner (was arguing ad hominem)

adi-a-bat-ic \ə-'dē-ə-'ba-tik, -ā-dī-ə-\ adj [Gk *adiabatos* impassable, fr. *a-* + *diabatos* passable, fr. *diabainein* to go across, fr. *dia-* + *bainein* to go — more at *COME*] (1870): occurring without loss or gain of heat (~ expansion of a body of air) — **adi-a-bat-ic-cal-ly** \-ti-k(ə)-lē\ adv

adieu \ə-'diū, ə-, -'dyū\ n, pl *adieux* or *adieux* \-düz, -'dyüz\ [ME, fr. MF, fr. *a* (fr. L *ad*) + *Dieu* God, fr. L *Deus* — more at *DEITY*] (14c): FAREWELL — often used interjectionally

ad-in-fi-ni-tum \ə-'d-in-fā-'nī-təm also 'ad-\ adv or adj [L] (1610): without end or limit

ad in-ter-im \ə-'d-in-tə-rəm, -rīm also 'ad-\ adv [L] (1787): for the intervening time: TEMPORARILY

ad interim adj (1818): made or serving ad interim

adi-os \ə-'dē-'ōs, ə-\ interj [Sp *adiós*, fr. *a* (fr. L *ad*) + *Dios* God, fr. L *Deus*] (1837) — used to express farewell

adip- or **adipo-** comb form [L *adip-*, *adeps*, prob. fr. Gk *aleipha* fat, oil, fr. *aleiphein* to rub with oil — more at *ALIPHATIC*]: fat (*adipocyte*)

adip-ic acid \ə-'di-pik-\ n [ISV] (1877): a white crystalline dicarboxylic acid C₆H₁₀O₄ formed by oxidation of various fats and also made synthetically for use esp. in the manufacture of nylon

ad-i-po-cyte \ə-'di-pō-'sit\ n (1959): FAT CELL

ad-i-pose \ə-'dē-'pōs\ adj [NL *adiposus*, fr. L *adip-*, *adeps*] (1743): of or relating to animal fat; broadly: FAT — **ad-i-pose-ity** \ə-'dē-'pā-sə-tē\ n

adipose tissue n (1854): connective tissue in which fat is stored and which has the cells distended by droplets of fat

ad-it \ə-'dət\ n [L *aditus* approach, fr. *adire* to go to, fr. *ad-* + *ire* to go — more at *ISSUE*] (1602): a nearly horizontal passage from the surface in a mine

ad-ja-cent-cy \ə-'jā-s'n(t)-sē\ n, pl -cies (1646) 1: something that is adjacent 2: the quality or state of being adjacent: CONTIGUITY

ad-ja-cent \ə-'jā-s'n(t)-\ adj [ME, fr. MF or L; MF, fr. L *adjacent-*, *adjacens*, prp. of *adjacere* to lie near, fr. *ad-* + *jacere* to lie; akin to L *jacere* to throw — more at *JET*] (15c) 1 a: not distant: NEARBY (the city and ~ suburbs) b: having a common endpoint or border (~ lots) (~ sides of a triangle) c: immediately preceding or following 2 of two angles: having the vertex and one side in common — **ad-ja-cent-ly** adv

syn ADJACENT, ADJOINING, CONTIGUOUS, JUXTAPOSED mean being in close proximity. ADJACENT may or may not imply contact but always implies absence of anything of the same kind in between (a house with an adjacent garage). ADJOINING definitely implies meeting and touching at some point or line (had adjoining rooms at the hotel). CONTIGUOUS implies having contact on all or most of one side (offices in all 48 contiguous states). JUXTAPOSED means placed side by side esp. so as to permit comparison and contrast (a skyscraper juxtaposed to a church).

ad-jec-ti-val \ə-'jik-'ti-vəl\ adj (1797) 1: ADJECTIVE 2: characterized by the use of adjectives — **ad-jec-ti-val-ly** \-vəl\ adv

ad-jec-tive \ə-'jik-'tiv also 'a-jə-'tiv\ adj [ME, fr. MF or LL; MF *adjectif*, fr. LL *adjectivus*, fr. L *adjectus*, pp. of *adjicere* to throw to, fr. *ad-* + *jacere* to throw — more at *JET*] (14c) 1: of, relating to, or functioning as an adjective (an ~ clause) 2: not standing by itself: DEPENDENT

Second College Edition

**The
American Heritage
Dictionary**

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Manufactured in the United States of America

tion of cyclic AMP from ATP. [ADEN(INE) + -YL + -ATE] + CYCL- + -ASE.]

adept (ə-dept) *adj.* Highly skilled or proficient. —*n.* (ād-dept) A highly skilled person; expert. [Lat. *adeptus*, p.part. of *adipisci*, to arrive at.] —*adv.* —*adeptly* *adv.* —*adeptness* *n.*

adequate (ād-i-kwit) *adj.* 1. Able to satisfy a requirement; suitable. 2. Barely satisfactory or sufficient. [Lat. *adaequatus*, p.part. of *adaequare*, to equalize : *ad-*, to + *aequare*, to make equal < *aequus*, equal.] —*adequacy* (-kwā-sē), *adequate-ness* *n.* —*adequately* *adv.*

à deux (ā' dōe) *adj.* Of or involving two individuals, esp. when of a private or intimate nature. —*adv.* Privately with only two individuals involved: *dining à deux*. [Fr.]

adhere (ād-hīr) *intr.v.* -hered, -hering, -heres. 1. To stick fast or together by or as if by grasping, suction, or being glued. 2. To be devoted as a follower or supporter. 3. To follow closely; carry out without deviation: *adhere to a plan*. [Fr. *adhérer* < Lat. *adhaerere*, to stick to : *ad-*, to + *haerere*, to stick.]

adherence (ād-hīr-ēns) *n.* 1. The process or condition of adhering. 2. Faithful attachment; devotion.

adherent (ād-hīr-ēnt) *adj.* 1. Sticking or holding fast. 2. Bot. Growing or fused together; adnate. —*n.* A supporter, as of a cause or individual. —*adherently* *adv.*

adhesion (ād-hē-zhən) *n.* 1. The act or state of adhering. 2. Attachment or devotion; loyalty. 3. Assent or agreement. 4. A condition in which bodily tissues that are normally separate are joined together. 5. The physical attraction or joining of two substances, esp. the macroscopically observable attraction of dissimilar substances. 6. A fibrous band holding together normally separate anatomical structures. 7. The pathological aggregation of dissimilar body materials to a visceral surface due to inflammation or trauma. [Fr. *adhésion* < Lat. *adhaesio* < *adhaerere*, to adhere.]

adhesio < Lat. *adhaesio* < *adhaerere*, to adhere.]

adhesio < Lat. *adhaesio* < *adhaerere*, to adhere.]

adhesive (ād-hē-sīv, -sīv) *adj.* 1. Tending to adhere; sticky. 2. Gummed so as to adhere. —*n.* An adhesive substance, such as paste or cement. —*adhesively* *adv.* —*adhesiveness* *n.*

adhesive tape *n.* A tape lined on one side with an adhesive.

ad hoc (ād hōk', hōk') *adj. & adv.* For a specific purpose, case, or situation: *an ad hoc committee*. [Lat., to this.]

ad hominem (ād hōm-i-nēm) *adj. & adv.* To the man; appealing to personal interests, prejudices, or emotions rather than to reason: *an ad hominem argument*. [Lat.]

adipose (ād-i-pōz) *adj.* Of, pertaining to, or designating a reversible thermodynamic process executed at constant entropy; loosely, occurring without gain or loss of heat [Gk. *adiabatos*, impassable : *a-*, not + *diabatos*, passable (dia, through + *batos*, passable < *bainein*, to go)] —*adiposely* *adv.*

adieu (ə-dyō', ə-dō') *interj.* Good-by; farewell. —*n.*, *pl.* *adieux* or *adieux* (ə-dyōz', ə-dōz'). A farewell. [ME < OFr. *a dieu*, (I commend you) to God : *a*, to (< Lat. *ad*) + *dieu*, God < Lat. *deus*.]

ad infinitum (ād in-fī-nī-tūm) *adj. & adv.* To infinity; without end; limitless. [Lat.]

ad interim (ād in-ter-i-əm) *adj. & adv.* In the meantime; meanwhile. [Lat.]

adios (ād-ē-ōs', ā-dē-ō) *interj.* Good-by; farewell. [Sp. *adios* : *a*, to (< Lat. *ad*) + *dios*, God < Lat. *deus*.]

adipocere (ād-i-pō-sēr) *n.* A brown, fatty, waxlike substance that forms on dead animal tissues in response to moisture. [ADIP(Ō)SE + Lat. *cera*, wax.]

adipose (ād-i-pōs) *adj.* Of or related to animal fat; fatty. —*n.* The fat found in adipose tissue. [NLat. *adiposus* < Lat. *adeps*, lard.] —*adiposity*, *adiposity* (-pōs-i-tē) *n.*

adipose tissue *n.* Connective tissue in the body that contains stored cellular fat.

adit (ād-īt) *n.* An almost horizontal entrance to a mine. [Lat. *aditus*, access < *adire*, to approach : *ad-*, toward + *ire*, to go.]

adjacent (āj-jā-sən-sē) *n.*, *pl.* -cies. 1. The state of being adjacent; contiguity. 2. A thing that is adjacent.

adjacent (āj-jā-sən-t) *adj.* 1. Close to; lying near. 2. Next to; adjoining. [ME < Lat. *adjacens*, p.part. of *adjacere*, to lie near : *ad-*, near to + *jacere*, to lie.] —*adjacently* *adv.*

adjacent angle *n.* Either of two angles having a common side and a common vertex.

adjectival (āj-jē-tī-vəl) *adj.* Of, pertaining to, or functioning as an adjective. —*adjectivally* *adv.*

adjective (āj-jē-tīv) *n.* 1. *Gram.* Any of a class of words used to modify a noun or other substantive by limiting, qualifying, or specifying. 2. *Ling.* Any of a form class distinguished in English morphologically by one of several suffixes, as *-able*, *-ous*, *-er*, and *-est*, or syntactically by position in a phrase or sentence, as *white* in *a white house*. 3. A dependent or subordinate. [ME < OFr. *adjectif* < Lat. *adjectivus* < *adjicere*, to add to : *ad-*, to + *jacere*, to throw.] —*adjectively* *adv.*

adjective pronoun *n.* *Gram.* A pronoun acting as an adjective, as *which* in *which dictionaries?* or *himself* in *He himself said so*.

adjoin (ə-jōin) *v.* -joined, -joining, -joins. —*tr.* 1. To be next to; be contiguous to. 2. To attach to; unite. —*intr.* To

be contiguous. [ME *ajoinen* < OFr. *ajoindre* < Lat. *adjungere*, to join to : *ad-*, to + *ungere*, to join.]

adjoining (ə-jōin-ing) *adj.* Neighboring; contiguous; next to.

adjourn (ə-jūrn) *v.* -journd, -journing, -journs. —*tr.* To suspend until a later stated time. —*intr.* 1. To suspend proceedings to another time or place. 2. *Informal.* To move from one place to another: *adjourned to the living room*. [ME *ajournen* < OFr. *ajourner* : *a*, to (< Lat. *ad*) + *jour*, day < Lat. *diurnum*.] —*adjournment* *n.*

adjudge (ə-jūj) *tr.v.* -judged, -judging, -judges. 1. To determine or decide by judicial procedure; adjudicate. 2. To order judicially; rule. 3. To award (damages, for example) by law. 4. To regard, consider, or deem. [ME *ajugen* < OFr. *ajuger* < Lat. *adjudicare*.] —*see ADJUDICATE*.

adjudicate (ə-jōō-dī-kāt) *tr.v.* -cated, -cating, -cates. To hear and settle (a case) by judicial procedure. [Lat. *adjudicare*, to award (to judicially) : *ad-*, to + *judicare*, to judge < *judex*, judge.] —*adjudication* *n.* —*adjudicative* *adj.* —*adjudicator* *n.*

adjunct (āj-jūŋkt) *n.* 1. Something attached to another thing but in a dependent or subordinate position. 2. A person associated with another in some duty or service in a subordinate or auxiliary capacity. 3. A word or words added in order to clarify, qualify, or modify other words. 4. *Logic.* A nonessential attribute of a thing. —*adj.* 1. Added or connected in a subordinate or auxiliary capacity: *an adjunct clause*. 2. Attached to a faculty or staff in a temporary or auxiliary capacity. [Lat. *adjunctum* < *adjunctus*, p.part. of *adjungere*, to join to. —*see ADJOIN*.] —*adjunction* (ə-jūŋk-tshən) *n.* —*adjunctive* *adj.*

adjuration (āj-jū-rā-shən) *n.* An earnest or solemn appeal.

adjure (ə-jōōr) *tr.v.* -jured, -juring, -jures. 1. To command or enjoin solemnly, as under oath. 2. To appeal to or entreat earnestly. [ME *adjuren* < Lat. *adjurare*, to swear to : *ad-*, to + *jurare*, to swear.] —*adjurer*, *adju-ror* *n.*

adjust (ə-jūst) *v.* -justed, -justing, -justs. —*tr.* 1. To change so as to match or fit; cause to correspond. 2. To bring into proper relationship. 3. To adapt or conform, as to new conditions: *unable to adjust themselves to their environment*. 4. To make accurate by regulation. 5. To decide how much is to be paid on (an insurance claim). 6. To correct (the range and direction of a gun) in firing. —*intr.* To adapt oneself; become suited or fit; conform. [Obs. Fr. *ad-juster* < OFr. *ajuster* : Lat. *ad*, to + Lat. *juxta*, near.] —*adjustable* *adj.* —*adjustably* *adv.* —*adjuster*, *adju-stor* *n.*

adjustment (ə-jūst-mənt) *n.* 1. a. The act of making fit or conformable. b. The condition of being adjusted. 2. A means for adjusting. 3. The settlement of a debt or claim. 4. A modification or correction: *an adjustment on a bill*.

adjutant (āj-jū-tənt) *n.* 1. A staff officer who helps a commanding officer with administrative affairs. 2. An assistant. 3. The marabout. [Lat. *adjutus*, *adjutus*, p.part. of *adjutare*, freq. of *adjuvare*, to help : *ad-*, to + *juvare*, to help.] —*adjutantcy* (-tən-sē) *n.*

adjutant general *n.*, *pl.* *adjutants general*. 1. An adjutant of a unit having a general staff. 2. An officer in charge of the National Guard of one of the states of the United States. 3. *Adjutant General.* The chief administrative officer, a major general, of the U.S. Army.

adjutant stork *n.* The marabout.

adjuvant (āj-jū-vənt) *n.* 1. A pharmacological agent added to a drug to increase or aid its effect. 2. An immunological agent that increases the antigenic response. [Lat. *adjuvans*, *adjuvant*, p.part. of *adjuvare*, to help. —*see AID*.]

adlerian (ād-līr-ē-ən) *adj.* Of or relating to a psychological school holding that behavior arises in subconscious efforts to compensate for inferiority or deficiency and that neurosis results from overcompensation. [After Alfred Adler (1870-1937).]

ad lib (ād lib') *adv.* In an unrestrained manner; freely; spontaneously. [Short for *AD LIBITUM*.]

ad-lib (ād-lib') *Informal.* —*v.* -libbed, -libbing, -libs. —*tr.* To improvise and deliver extemporaneously. —*intr.* To improvise, as a speech; extemporize. —*n.* Words, music, or actions ad-libbed. —*adj.* Spoken or performed spontaneously. —*ad-libber* *n.*

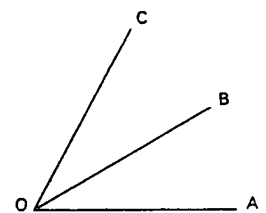
ad libitum (ād lib-i-tūm) *adj.* *Mus.* Performed with freedom. Used as a direction. [Lat. *ad*, to + *libitum*, pleasure.]

adman (ād-mān) *n.* *Informal.* A person employed in the advertising business.

admeasure (ād-mēzh-ər) *tr.v.* -ured, -uring, -ures. To divide and distribute proportionally; apportion. [ME *amesuren* < OFr. *amesurer* : *a*, to (< Lat. *ad*) + *mesurer*, to measure.] —*admeasure-ment* *n.* —*admeasure-ur* *n.*

Admetus (ād-mē-təs) *n.* *Gk. Myth.* A king of Thessaly and husband of Alcestis. [Lat. < Gk. *Admētōs*.]

administer (ād-mīn-ī-stər) *v.* -tered, -tering, -ters. —*tr.* 1. To have charge of; manage. 2. a. To give or apply in a formal way: *administer the last rites*. b. To apply as a remedy: *administer a sedative*. 3. To mete out; dispense: *administer justice*. 4. To manage or dispose of (a trust or estate) under a will or an official appointment. 5. To impose, offer, or tender (an oath, for example). —*intr.* 1. To manage as an administrator. 2. To minister: *administering to their every*



adjacent angle
AOB and BOC are
adjacent angles

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adhesive



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adhesive

Dictionary



ad·he·sive (ăd-hə'sɪv, -zɪv)

adj.

1. Tending to adhere; sticky.
2. Gummed so as to adhere.
3. Tending to persist; difficult if not impossible to shake off: *"He feels an adhesive dread, a sudden acquaintance with the . . . darker side of mankind"* (George F. Will).

n.

A substance, such as paste or cement, that provides or promotes adhesion.

ad·he'sive·ly *adv.*

ad·he'sive·ness *n.*

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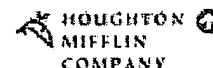
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Thesaurus

adhesive

adjective

Having the property of adhering: gluey, gooey, gummy, sticky, tacky. See clean/dirty, keep/release.

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Antonyms

adhesive
adj

Definition: sticking


Antonyms: loose, open, separated

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Encyclopedia

adhesive, substance capable of sticking to surfaces of other substances and bonding them to one another. The term *adhesive cement* is sometimes used in place of *adhesive*, especially when referring to a synthetic adhesive. Animal glue, a gelatin made from hides, hooves, or bones, was probably known in prehistoric times; it remained the leading adhesive until the 20th cent. It is now used especially in cabinetmaking. Animal glue is sold both as a solid (either ground or in sheets, to be melted in a water-jacketed glue pot and applied while hot) and as liquid glue (an acidic solution). Adhesives from vegetable sources are also important; they include natural gums and resins, mucilage, and starch and starch derivatives. They are commonly used for sizing paper and textiles and for labeling, sealing, and manufacturing paper goods. Other adhesives derived from animal and vegetable sources include blood glue, casein glue, fish glue, rubber adhesives, and cellulose derivatives. Adhesives having special properties are prepared from synthetic resins. Some synthetic adhesives, such as the epoxy resins, are strong enough to be used in construction in place of welding or riveting. Adhesive tapes have a coating of pressure-sensitive adhesive.

Bibliography


See I. Skeist, ed., *Handbook of Adhesives* (1962); N. A. de Bruyne and R. Houwink, ed., *Adhesion and Adhesives* (2 vol., 2d ed. 1965-67); A. J. Kinloch, *Adhesion and Adhesives: Science and Technology* (1987).

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ad·he·sive (ăd-hə'səv, -zəv)
adj.

1. Tending to adhere; sticky.
2. Of, relating to, or having the characteristics of an adhesion.

n.

A substance that adheres to a surface or causes adherence between surfaces.



WordNet

Note: click on a word meaning below to see its connections and related words.

The *noun* adhesive has one meaning:

Meaning #1: a substance that unites or bonds surfaces together

Synonym: adhesive material

The *adjective* adhesive has one meaning:

Meaning #1: tending to adhere

Antonym: nonadhesive (meaning #1)

Wikipedia

adhesive



An **adhesive** is a compound that adheres or bonds two items together. Adhesives may come from either natural or synthetic sources. Some modern adhesives are extremely strong, and are becoming increasingly important in modern construction and industry.

History

The first adhesives were gums and other plant resins. Archaeologists have found 6000-year-old ceramic vessels that had broken and been repaired using plant resin. Most early adhesives were animal glues made by rendering animal products such as the Native American use of buffalo hooves. Native Americans in what is now the eastern United States used a mixture of spruce gum and fat as adhesives and as caulk to waterproof seams in their birchbark canoes.

Categories of adhesives

Drying adhesives

These adhesives are a mixture of ingredients (typically polymers) dissolved in a solvent. Glues and rubber cements are members of the *drying adhesive* family. As the solvent evaporates, the adhesive hardens. Depending on the chemical composition of the adhesive, they will adhere to different materials to greater or lesser degrees. These adhesives are typically weak and are used for household applications. Some intended for small children are now made non-toxic.

Hot adhesives



A glue gun, an example of a hot adhesive

Also known as "hot melt" adhesives, these adhesives are applied hot and simply allowed to harden as they cool. These adhesives have become popular for crafts because of their ease of use and the wide range of common materials to which they can adhere. A glue gun, pictured right, is one method of applying a hot adhesive. The glue gun melts the solid adhesive and then allowing it to pass through the "barrel" of the gun onto the material where it solidifies.

Reactive adhesives

Epoxy resins are the most common example of this kind of adhesive. Reactive adhesives generally come in two separate containers. The two ingredients of the adhesive must be mixed in certain proportions immediately before application. Generally one ingredient is a monomer, or resin, and the second is a reaction initialiser. When the two are mixed together, a polymerisation reaction occurs which solidifies the adhesive.

Reaction adhesives may also react with the surface of the materials to be stuck together. This process is called bonding, in which the adhesive forms chemical bonds with the material, and is distinct from sticking, the action of common glues.

A special case of this kind of adhesive is cianoacrylate (more commonly known by the brand name "super glue") which reacts with trace moisture on the surfaces being bonded and therefore does not need any mixing before application.

Reactive adhesives are very strong and are used for high-stress applications such as attaching wings to aircraft. Because the strength of a reactive adhesive is a result of chemical bonding with the surface material, reactive adhesives are applied in thin films. Reactive adhesives are less effective when there is a secondary goal of filling gaps between the surfaces..

Such adhesives are frequently used to prevent loosening of bolts and screws in rapidly moving assemblies, such as automobile engines. They are largely responsible for the quieter running modern car engines.

Temporary adhesives

Temporary adhesives are designed to repeatedly or easily stick and unstick. They have low adhesion and generally can not support much weight. They are commonly used on paper, but can be used on many other things. They have common applications such as as bookmarks, informal notes, and office supplies. Brands include Blu-Tack, a gum-like adhesive (a.k.a. "sticky tak"), adhesive bandages, and the pressure-activated adhesive applied to the back of 3M's Post-It notes. The adhesives on items such as duct tape can generally adhere longer than these other products.

Also see adhesive tape and gaffer tape.

Adhesive failure

Adhesives may fail in one of two ways:

Adhesive failure is the failure of the adhesive to stick or bond with the material to be adhered (also known as the substrate or adherend).

Cohesive failure is structural failure of the adhesive. Adhesive remains on both substrate surfaces, but the two items separate.

Two substrates can also separate through structural failure of one of the substrates; this is not a failure of the adhesive. In this case the adhesive remains intact and is still bonded to one substrate and the remnants of the other.

For example, when one removes a price label, adhesive usually remains on the label and the surface. This is cohesive failure. If, however, a layer of paper remains stuck to the surface, the adhesive has not failed.

As another example, children often try to pull apart Oreo cookies with the filling all on one side. The goal is an adhesive failure, rather than a cohesive failure.

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Translations

Translations for: Adhesive

Nederlands (Dutch)
lijm, klevend, plak-

Français (French)
adhésif

Deutsch (German)
adj. - klebend, haftend
n. - Klebstoff, Kleber

Ελληνική (Greek)
n. συγκολλητική ουσία, αυτοκόλλητο adj. (συγ) κολλητικός, κολλώδης

Italiano (Italian)
adesivo

Português (Portuguese)
n. - adesivo (m), cola (f)
adj. - adesivo, aderente, viscoso

Русский (Russian)
цемент, клей, клейкий, липкий

Español (Spanish)
adj. - adhesivo
n. - adhesivo, pegamento

Svenska (Swedish)



n. - bindemedel, klister, lim
adj. - självhäftande, häft-

简体 (Simplified Chinese)
adj. - 粘, 粘贴, 粘糊
n. - 粘, 粘糊

繁体 (Traditional Chinese)
adj. - 粘, 粘贴, 粘糊
n. - 粘, 粘糊

日本語 (Japanese)
n. - 粘
adj. - 粘糊

العربي (Arabic)
(الاسم) ماده سريعه التماسك مثل الغراء (صفه) دبق, لزق, سريع الالتصاق

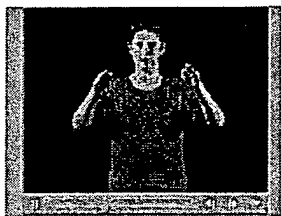
עברית (Hebrew)
adj. - דביק
n. - דבק

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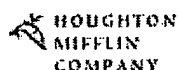
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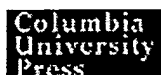
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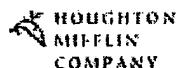
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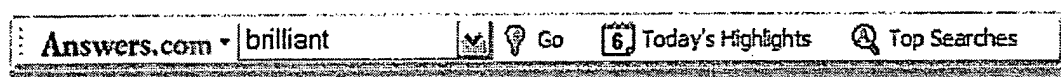
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